

Amendments to the Specification:

Please replace the paragraph, beginning at page 1, line 9, with the following rewritten paragraph:

The present invention relates to a power amplifier, a power amplifying method, and a power amplifier with predistortion compensation. ~~The present invention and specifically concerns a power amplifier, a power amplifying method, and a power amplifier with predistortion compensation that are used mainly at radio communication base stations of mobile phones and so on, can amplify a signal, and can reduce distortion occurring during amplification.~~

Please replace the paragraph, beginning at page 1, line 19, with the following rewritten paragraph:

~~In recent years, for transmitters used there has been a demand in base stations of radio communication apparatuses transmitters, for high-efficiency power amplifiers with high linearity. have been demanded. These amplifiers are required to amplify a number of signal channels in a collective manner. In order to increase the linearity of power amplifiers, for example, it is necessary to adopt distortion compensating circuits of a predistortion system or the like.~~

Please replace the paragraph, beginning at page 2, line 12, with the following rewritten paragraph:

In the power amplifier configured ~~thus~~ with predistortion compensation, a modulated carrier signal inputted ~~from the~~ to input terminal 601 is divided into two in the power divider 603. In response to one of the divided modulated carrier signals, the distortion generating circuit 605 generates a distorted signal. The distorted signal is adjusted in amplitude and phase in the variable attenuator 606 and the variable phase shifter 607, ~~and then, the~~ resultant signal is fed to the power combiner 608. The other modulated carrier signal having been divided in the power divider 603 is delayed in the delay circuit 604, and then, the signal is inputted into the power combiner 608. The power combiner 608 combines the distorted signal and the modulated carrier signal and inputs the combined signal to the amplifier 609. The amplifier 609 amplifies the inputted signal and outputs the signal from the output terminal 602.

Please replace the paragraph, beginning at page 3, line 13, with the following rewritten paragraph:

As described above, in the power amplifier with predistortion compensation shown in Fig. 29, a distorted signal is generated which is equal in amplitude in opposite phase to distortion expected to be generated when the amplifier 609 amplifies a modulated carrier signal, and the signal is added to a modulated carrier signal to be inputted to the amplifier 609 (that is, a distortion component equal in amplitude to generated distortion in opposite phase is inputted to the amplifier), so that distortion generated in the amplifier 609 is reduced. Such a circuit configuration is disclosed, for example, Japanese Patent Laid-Open No. 2000-261252. ~~The entire disclosure of the above reference is incorporated herein by reference in its entirety.~~

Please replace the paragraph, beginning at page 14, line 9, with the following rewritten paragraph:

Figs. 3(a)-3(b) are ~~is a~~ diagrams showing a frequency spectrum of a distortion component appearing in the power amplifier according to Embodiment 1 of the present invention;

Please replace the paragraph, beginning at page 14, line 12, with the following rewritten paragraph:

Fig. 3(a) shows ~~that an~~ inverted envelope component ~~is not~~ injected into an amplifier 106; and Fig. 3(b) shows ~~that an~~ inverted envelope component ~~is~~ injected into the amplifier 106;

Please replace the paragraph, beginning at page 15, line 24, with the following rewritten paragraph:

Fig. 16(a) is a diagram showing ~~an~~ operation of an amplifier alone in the power amplifier with predistortion compensation according to Embodiment 7 of the present invention;

Please replace the paragraph, beginning at page 16, line 3, with the following rewritten paragraph:

Fig. 16(b) is a diagram showing ~~an~~ operation of the power amplifier with predistortion compensation according to Embodiment 7 of the present invention;

Please replace the paragraph, beginning at page 20, line 2, with the following rewritten paragraph:

The following ~~will describes~~ embodiments of the present invention in accordance with the accompanying drawings. In all of the embodiments and drawings, the same components are indicated by the same reference numerals. Embodiments 1 to 7 will be discussed below.

Please replace the paragraph, beginning at page 20, line 8, with the following rewritten paragraph:

Fig. 1 is a block diagram showing a power amplifier according to Embodiment 1 of the present invention. In Fig. 1, the power amplifier comprises an input terminal 101, an output terminal 102, a baseband part 103, ~~a~~ digital-analog (hereinafter, referred to as D/A) converters 104 and 109, an orthogonal modulator 105, an amplifier 106 serving as an example of amplifying means of the present invention, a power divider 107, an inverted envelope generating circuit 108 serving as an example of inverted envelope generating means of the present invention, a variable delay circuit 110 serving as an example of first phase adjusting means of the present invention, a gain variable amplifier 111 serving as an example of first

amplitude adjusting means of the present invention, a low-pass filter 112, a signal level detector 113 serving as an example of first level detecting means of the present invention, a control circuit 114, and a local oscillator 115. For the gain variable amplifier 111, for example, a transistor such as a bipolar transistor is used. The control circuit 114 is constituted of, for example, a memory (storage device) such as a ROM.

Please replace the paragraph, beginning at page 23, line 3, with the following rewritten paragraph:

As shown in Fig. 2, the input-side matching circuit 214 ~~is constituted of~~comprises capacitors 203, 205, and 207, a transmission line 204, and a resistor 206. The output-side matching circuit 226 ~~is constituted of~~comprises capacitors 217 and 219 and a transmission line 218. Further, the input-side power supply circuit 215 ~~is constituted of~~comprises coils 209 and 210, capacitors 211 and 213, and a resistor 212. The output-side power supply circuit 227 ~~is constituted of~~comprises a coil 221 and a capacitor 222. Moreover, the inverted envelope injecting circuit 228 ~~is constituted of~~comprises a capacitor 224 and a coil 225.

Please replace the paragraph, beginning at page 27, line 16, with the following rewritten paragraph:

~~Besides, in~~In the present embodiment, a modulating signal of a single wave was discussed as an example. ~~Even in~~In the case of a plurality of modulating signals, the same operation is performed and the same effect is achieved.

Please replace the paragraph, beginning at page 33, line 19, with the following rewritten paragraph:

The following will describe the operation of the power amplifier according to the present embodiment ~~configured thus~~. A high-frequency signal modulated by baseband data is inputted to the input terminal 101 of the present embodiment. The signal is divided into two in the power divider 121, and one of the divided outputs is inputted to the amplifier 106. The other divided output from the power divider 121 is inputted to the envelope detector 122, in which an envelope component of the input signal is extracted. The sign of the envelope component is inverted in the sign inversion circuit 123, the delay time and level are adjusted in the variable delay circuit 110 and the gain variable amplifier 111, and a spurious component is removed in the low-pass filter 112. A signal having been subjected to the above processing is injected into the output terminal of the amplifier 106. The subsequent operation is the same as that of Embodiment 1. In this way, while digital IQ signals are used to generate an inverted envelope component in Embodiment 1, the present embodiment is different from Embodiment 1 in that an inverted envelope component is generated from a modulated high-frequency signal.

Please replace the paragraph, beginning at page 33, line 19, with the following rewritten paragraph:

With the configuration of the present embodiment, a circuit capable of attaining the same effect as Embodiment 1 ~~can be constituted of~~comprises only of a high-frequency circuit,

thereby achieving a more simple circuit configuration and a smaller size as compared with Embodiment 1.